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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,357	08/03/2006	Hans-Juergen Oberle	3772	7224

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EXAMINER
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YABUT, DANIEL D

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3656

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,357	<b>Applicant(s)</b> OBERLE ET AL.	
	<b>Examiner</b> DANIEL YABUT	<b>Art Unit</b> 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/3/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 4, 5, 6, 9 and 10** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the retaining region" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the axial retaining region" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 9, the phrase "e.g." renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

3. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

Claim 5 recites the broad recitation "a form fit connection", and the claim also recites "radial projections, in particular" which is the narrower statement of the range/limitation.

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Claim 10 recites the broad recitation “a method for manufacturing a gearbox drive unit”, and the claim also recites “in particular as recited in claim 1” which is the narrower statement of the range/limitation.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1, 2, 4, 5, 7, and 9**, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Gauger et al., US Patent 5,613,402.

Gauger et al. discloses gearbox drive unit (Fig. 4) comprising a(n):

*Re claim 1*

- Rotary body (148) which is rotatably mounted in a housing (142) and bears axially - via at least one end face (at 173) thereof- against an adjusting element which is fixed to the housing, wherein the adjusting element can be slid axially into the housing (12) for installation and it can be locked in position axially by rotating it relative to the housing (C5 / L6-8). **Note:** *Regarding the limitation, “element can be slid axially into the housing for installation and it can be locked in position axially by rotating it relative to the housing”, the MPEP states, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113.*
- Adjusting element including a radial bearing surface (176) in which the rotary body is radially supported (C5 / L8-11).

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*Re claim 2*

- Adjusting element includes a cylindrical recess (176) with a cylindrical wall (at 146; near 178) that is the radial bearing surface.

*Re claim 4*

- Retaining region (at 160; Fig. 5a) has an outer profile (at 160) that locks the adjusting element in place axially when rotated in a corresponding inner shape (170) of the housing (C5 / L6-8).

*Re claim 5*

- Outer profile forms a form-fit connection (C4 / L62-63) with the housing when it is rotated in the inner shape of the housing, radial projections (at 160; Fig. 5A), in particular, of the outer profile digging into the inner shape of the housing.

*Re claim 7*

- Adjusting element includes a guide region (near 180) in particular with an outer radius that is constant around the circumference (Fig. 5B) for radially centering the adjusting element in a corresponding centering section of the housing (C5 / L19-23).

*Re claim 9*

- Support element includes on the side diametrically opposed to the stop face a form-fit driving element (182), e.g., an inner polyhedron or several recesses, for transferring torque when support element is installed (C5 / L19-23).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 3 and 6**, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gauger et al., US Patent 5,613,402, in view of DE10141113.

Gauger et al. discloses all the claim limitations, see above, including the adjusting element including a retaining region (at 160; Fig. 5A) with an outer radius (at 160). However, Gauger et al. does **not** expressly disclose the circumference of the axial retaining region being designed as an n-cornered polygonal outline with a continually changing outer radius, and the retaining region being axially insertable in a correspondingly shaped inner shape of the housing when the adjusting element is installed.

DE10141113 teaches the use of a circumference of the axial retaining region (Fig. 1) being designed as an n-cornered polygonal outline (15.1) with a continually changing outer radius (at 15.1, 2), and the retaining region being axially insertable in a correspondingly shaped inner shape of the housing (15.2) when an adjusting element (2) is installed for the purpose of adequately securing the connection, thus promoting the reliability of the device.

Regarding **claim 3 and 6**, it would have been obvious to one having ordinary skill at the time of the invention to provide the circumference of the axial retaining region being designed as an n-cornered polygonal outline with a continually changing outer radius, and the retaining region being axially insertable in a correspondingly shaped inner shape of the housing when the adjusting element is installed, As taught by DE10141113, in the device of Gauger et al. for the purpose of adequately securing the connection, thus promoting the reliability of the device.

8. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gauger et al., US Patent 5,613,402 in view of Schroeder, US Patent 1,739,616.

Gauger et al discloses all the claim limitations, see above, including the rotary body being designed as a worm gear (C4 / L50) located on a gearbox spindle (C4 / L11-13). However, Gauger et al. does **not** expressly disclose the housing being designed as a tubular metal cage.

Schroeder teaches the use of a housing being designed as a tubular metal cage (Fig. 3; pg 1 / L8-10) for the purpose of providing a simple and efficient mechanism for housing and supporting a worm gear (pg. 1 / 5-7, 11-13).

It would have been obvious to one having ordinary skill at the time of the invention to provide the housing being designed as a tubular metal cage, as taught by Schroeder, in the device of Gauger et al. for the purpose of providing a simple and efficient mechanism for housing and supporting a worm gear.

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9. **Claim 10**, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Gauger et al., US Patent 5,613,402.

Gauger et al. discloses all the claim limitations, see above, including the following:

- A method for manufacturing a gearbox drive unit , in particular as recited in claim 1, comprising the following manufacturing steps:
  - Insert a rotary body (148) with a first axial stop (near 169) in a gearbox housing (142) with a corresponding counterstop (near 166; C4 / L50-53)
  - Axially insert an adjusting element (160) into the gearbox housing until the adjusting element bears with an axial stop face (at 173) against an end face (at 173) of the rotary body with a specifiable contact pressure the rotary body bearing radially against a radial bearing surface (176) of the adjusting element (C4 / L62-67; C5 / L1-11, L19-23).
  - Axially lock the adjusting element (50) in place by rotating it (C5 / L19-23)

However, Gauger does not expressly disclose rotating the adjusting element by a fraction of a revolution of the adjusting element inside an inner shape (170) of the gearbox housing.

It would have been obvious to one having ordinary skill in the art at the time of the invention to rotate the adjusting element by a fraction of a revolution of the adjusting element inside an inner shape of the gearbox housing, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. See MPEP 2144.05.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL YABUT whose telephone number is (571)270-5526. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard W. Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL YABUT/  
Examiner, Art Unit 3656  
12/12/2008

/Richard WL Ridley/  
Supervisory Patent Examiner, Art Unit 3656